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10/632,892	07/31/2003	C. Bret Elzinga	6922.34	3057

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EXAMINER

UTAMA, ROBERT J

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/632,892

Applicant(s)

ELZINGA ET AL.

Examiner

Robert J. Utama

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/26/2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11, 12, and 14-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is a response to the amendment filed on: 12/29/2006. The current status of claims are as follow: claim 1-6, 8-11, 12, and 14-70. Claims 7 and 13 have been cancelled.

Claim Objections

2. Claim 34 is objected to due to the typographical error of the word "pather".

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For an invention to be deemed statutory, an invention needs to show that the invention is useful, tangible and concrete. In this particular case the examiner founds the invention fail to be considered concrete. For an invention to be considered concrete, the invention needs have a result that is substantially repeatable or must substantially produce the same result again. In the limitation of claim 6, the applicant claimed "... *the systematic spaced review transitions the user's understanding from the user's short-term memory to the user's long-term memory*". While the examiner might agree that the system can transition user's understanding from short-term memory to long-term memory, the examiner question that this results can happens every time the user uses the system as required by the limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 1-6, 8-10, 14-19, 22-23, 25, 27-29, 31, 33-43, 48, 50-52, 58-59, 61-69 rejected under 35 U.S.C. 103(a) as being unpatentable over Parry US 6,077,085 and further in view of Krebs US 7,029,280.**

Claim 1, 50, 58 and 61: Parry '085 provides a teaching where the adaptive educational path iteratively presents at least a portion of the presentation of the user over a extended period of time (Parry col. 3:47-64), the adaptive re-sequencing of the presentation is based of a characteristic of the user (Parry col. 3:2-5) and analysis module that determines the learning pace and understanding of the material (Parry col. 2:65-3:5).

However, Parry '085 fails to provide a teaching for a user interface and design technique to design an adaptive educational path having a sequence of dynamic educational content for presentation to one or more user, where the design technique automatically produces computer readable instruction relating to the educational content and providing adaptive educational path for presentation of the educational content to the user.

Krebs '280 provide a teaching for a user interface and design technique to design an adaptive educational path having a sequence of dynamic educational content for presentation to one or more user (see Krebs FIG. 11 and col. 14:30-37).

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The design technique automatically produces computer readable instruction relating to the educational content (Krebs col. 1:56-61). Graphically associating educational concept (knowledge unit) types with relationship types and properties that maintain its association should the knowledge unit be moved (see Krebs '280 col. 12:39-45, col. 5:10-22 and FIG.2). Providing alternative path for presentation of the educational content (see Krebs FIG. 11 and col. 14:30-37). Therefore, it would have been obvious to include the features of a user interface and design technique to design an adaptive educational path having a sequence of dynamic educational content for presentation to one or more user, automatically producing computer readable instruction relating to the educational content, associating educational concept (knowledge unit) types with relationship types and properties that maintain its association should the knowledge unit be moved and providing alternative path for presentation of the educational content; into the system of Parry '085 because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 2,51,59 and 62: Parry '085 provide a teaching where the characteristic is at least one of the learning progress of the user (i.e: student's speed and accuracy). [See Parry 2:65-col.3:2].

Claim 3, 5 and 20: Parry '085 provide a teaching where the presentation of a portion of presentation of the user composed of a step to provide systematic spaced review are based on user's performance and where the performance are correspond to user's speed or accuracy (see Parry '085 abstract and col. 2:65 – 3:2).

Claim 4: Parry '085 provide a teaching where the presentation of a portion of presentation of the user composed of a step to provide systematic spaced review is based on minimum and maximum delay of the review and such parameters are

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selectively adjustable by the designer (see Parry '085 abstract and col.2:65 – 3:2).

Parry et al also provide a teaching where the delay in the spaced review method is based on a maximum (several days) or minimum delay (1 day) [see Parry '085 col. 20:19-22]. It is not known if these parameters are adjustable by the designer.

However, the examiner takes the position that the determination of such parameter would always reside on the hand of a designer.

Claim 6: Parry '085 provide a teaching where the spaced review transitions the users understanding of the educational content from short-term to long-term memory (Parry col. 15:19-21).

Claim 8-10: Parry '085 fails to provide a teaching where the design technique comprises at least: a drag-and-drop technique that graphically relates components of the educational component (claim 8), association comprises of linking available components of the educational content based on specific properties of the component (claim 9) and modifying properties of the available component (claim 10).

Krebs '280 provide a teaching where the design technique comprise of a drag-and-drop technique that graphically relates components of the educational component and association comprises of linking available components of the educational content based on specific properties of the component (Krebs '280 col.14:4-11). Krebs also provide a teaching of modifying properties of the available component (Krebs '280 col. 13:60-67). Therefore, it would have been obvious to include the features of a drag-and-drop technique that graphically relates components of the educational component , association comprises of linking available components of the educational content based on specific properties of the component and modifying properties of the

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available component into the system of Parry '085 because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 14 and 15: Parry '085 fails to provide a teaching where the adaptive educational path provides an order for concepts to be learn by the user [Claim 14] and the path compires of a linear sequence of activity [Claim 15]

Claim 16: Parry '085 provides a teaching where a flow educational activity includes one or more stage marker (new stage, test stage) that delineates meaningful stages of learning (col. 20:65 – col. 21:5).

Claim 17 and 68: Parry and Krebs fail to provide a teaching of automatically snapping activity icons to a grid.

The examiner takes OFFICIAL NOTICE that the feature of automatically snapping activity icons to a grid since this feature are old and well known in the art of document processing and design. Therefore, it would have been obvious to include the feature of automatically snapping activity icons to a grid into the system of Parry and Krebs since it would allow the author design in a fluid manner.

Claim 18 and 67: Parry '085 fails to provide a teaching where design of the adaptive education path, consist of developing a series of activity icon into a flow of activities. Krebs '280 provides a teaching where an author can develop an adaptive education path by developing a series of activity icon into a flow of activities (Krebs '280 col. 12:39-45 and FIG. 11). Therefore, it would have been obvious to include the feature of developing an adaptive education path by developing a series of activity icon into a flow of activities, as taught by Krebs '280, within the system of Parry '085 because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

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Claim 19 and 69: Parry '085 fails to provide a teaching where movement of an activity icon within the flow activities, includes maintaining a relationship with other activities branching from the activity icon being moved.

Krebs '280 provides a teaching of graphical user interface that is used to describe the flow of a course activity (see Krebs '280 FIG. 11 item labeled as "knowledge unit" and col. 2:55-3:15). These knowledge units contain other activities that branch to other learning material (see Krebs '280 FIG. 2 and col. 4:25-34), that would maintain their relationship when they are moved (col. 4:59-63). Therefore, it would have been obvious to include the feature of maintaining a relationship with other activities branching from the activity icon being moved, as taught by Krebs '280, into the system of Parry '085 because it would enable different course to share the same resource enabling the efficient course design by re-using sharable knowledge unit (Krebs '280 col. 4:64-67).

Claim 21 and 43: Parry '085 provides a teaching for designing an environment that includes a look and feel that is customized to a particular audience (e.g. via videodisc or audio recording) (see Col.3:36-51).

Claim 22: Parry '085 fails to provide a teaching where the designing of dynamic content comprises of: graphically associating educational concept types with relationship types and properties.

Krebs '280 provide a teaching where in designing the education content consists of graphically associating educational concept types with relationship types and properties (see Krebs '280 col. 12:39-45). Therefore, it would have been obvious to include the feature of graphically associating educational concept types with

relationship types and properties, as taught by Krebs 280, because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 23: Parry '085 provide a teaching for an interface and design technique to automatically analyzes data to identify the association (Parry col. 6:59-67).

Claim 25: Parry '085 is silent if the design of the course does not require the course to be designed at the code level by a programmer.

Krebs '280 provide an explicit teaching of designing a lesson via the use of a GUI (see Krebs '280 col. 12:39-45). Therefore, it would have been obvious to include the feature of designing the course without going down to the code level, as taught by Krebs 280, because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 27: Parry '085 provide a teaching automatically identifying the current activity of the user, keeping track of the user's learning progress and automatically determine the next activity to the user (see Parry '085 abstract, col. 3:25-30, col. 3:60-67 and FIG. 15).

Claim 28: Parry '085 provide a teaching where the upon the end of an activity the system will make a decision (or branch) whether to present next material or provide review lessons (col. 3:2-9 and col. 18:51-60).

Claim 29 and 33: Parry '085 provide a teaching automatically identifying the current activity of the user, providing assistance if the material is not understood, and providing another adaptive path if the material is understood (see Parry '085 abstract, col. 3:2-9).

Claim 34 and 48: Parry '085 provides a teaching where the frequency of the presentation of certain educational material is modified based on the learning rate of

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the student [**Claim 34**] (Parry '085 col. 3:1-10). Materials that are deemed to be difficult are given more priorities (shown more) and materials that are deemed to be mastered are given less priorities (shown less) [**Claim 48**] (see Parry col.3:9-20).

Claim 31 and 38 and 47: Parry '085 provides a teaching where the system records and reports a user's progress (col. 10:58-63).

Claim 37: Parry '085 fails to provide a teaching where the relational order is an hierarchical order.

Krebs 280 however, provides a teaching where the lesson objects also have a hierarchical order (see Krebs 280 fig. 11). Therefore, it would have been obvious to include the feature of graphically associating the lesson objects as a hierarchical order, as taught by Krebs 280, because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 39 and 40: Parry '085 provide teachings where the designer is allowed to determined the type information to be tracked and one of those information is the time period (col. 2:65-col.3:2).

Claim 41: Parry '085 fails to provide a teaching where the component modules are re-usable for designing other educational content, thereby causing an efficient design process.

Krebs 280 provides a teaching where the component module is tagged using metadata such that these components are re-usable for creating other learning objects (col. 4:53-67). Therefore, it would have been obvious to include the feature of having component modules that are re-usable for designing other educational content, as taught by Krebs '280, into the system of Parry '085 because it would enable different

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course to share the same resource enabling the efficient course design by re-using sharable knowledge unit (Krebs '280 col. 4:64-67).

Claim 42: Parry '085 fails to provide a teaching where the step of allowing the portions of the content to be selectively supportive of output formats.

Krebs '280 provide a teaching where the knowledge unit to be represented by various electronic output layout format (col. 4:25-34). Therefore, it would have been obvious to include the feature of having the knowledge unit to be represented by various electronic output layout format, as taught by Krebs '280, into the system of Parry '085 because it would enable the course designer to reach various user with a different computer system.

Claim 52: Parry '085 fails to provide a teaching where the graphical user interface is configured to design an adaptive educational path, and where such interface facilitates the creation adaptively sequence instruction.

Krebs '289 provides a teaching where the graphical user interface is used to design an adaptive educational path, where different learning strategies have it own path (Krebs '280 col. 2:50-55). Therefore, it would have been obvious to include the feature of graphical user interface is configured to design an adaptive educational path, and where such interface facilitates the creation adaptively sequence instruction, as taught by Krebs '280, within the system of Parry '085 because it would enable the author to design a course in an intuitive straightforward manner (Krebs col. 1:48-53).

Claim 63: Parry '085 provide a teaching where the presentation of a portion of presentation of the user composed of a step to provide systematic spaced review (see Parry '085 abstract and col.2:65 – 3:2). The spaced review parameters are controlled at least by the user accuracy or speed of understanding (see Parry '085 abstract).

Claim 65: Parry '085 provide a teaching that the relational association is between components of educational content and is based on specific topic and subtopic (see Parry '085 sub-topic and orientation col. 11:45-55).

7. Claim 12, 53-55 and 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Parry US 6,077,085, in view of Krebs US 7,029,280 and further in view of Rukavina 2002/0188583

Claim 12: Parry '085 and Krebs 280 fails to provide a teaching where the interface and design technique also comprises of dynamically linking roles between users of the activity.

Rukavina '583 provide a teaching of a system that provides collaborative activity among user and linking the roles of the users in the activity (see paragraph [0040]). Therefore it would have been obvious to include the teaching of providing a collaborative activity among user and linking the roles of the users in the activity, as taught by Rukavina, into the system of Parry '085 in order to provide a method to discuss real-application of their knowledge.

Claim 53, 54 and 55: Parry '085 and Krebs '280 fails to provide a teaching where the computer is configured to exchange information between two computers [**Claim 53**], where the communication mechanism is a network [**Claim 54**], and specifically that the network is the Internet [**Claim 55**].

Claim 57: Parry, Krebs and Rukavina fail to provide a teaching of automatically snapping activity icons to a grid.

The examiner takes OFFICIAL NOTICE that the feature of automatically snapping activity icons to a grid since this feature are old and well known in the art of document

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processing and design. Therefore, it would have been obvious to include the feature of automatically snapping activity icons to a grid into the system of Parry and Krebs since it would allow the author design in a fluid manner.

8. Claim 24, 26, 60 and 70 rejected under 35 U.S.C. 103(a) as being unpatentable over Parry US 6,077,085, in view of Krebs US 7,029,280 and further in view of Kershaw 5,565,316

Claim 24, 26, 60 and 70: Parry and Krebs fails to provide a teaching where automated test are executed to ensure that components function as designed and diagnosing errors in the components [**Claim 24, 60, 70**] and detecting any potential problem for repair [**Claim 26**].

However, Kershaw '316 provides a teaching of having a quality assurance test, which can diagnose error and detect any potential problem for repair (Col.28:4-18).

Therefore, it would have been obvious to include the feature of having a quality assurance test which can diagnose error and detect any potential problem for repair, as taught by Kershaw '316, in order to assure the quality of the test component.

9. Claim 30 and 49 rejected under 35 U.S.C. 103(a) as being unpatentable over Parry US 6,077,085, in view of Krebs US 7,029,280 and further in view of Jenkins US 6, 293,801.

Claim 30 and 49: Parry and Krebs fails to provide a teaching where the system automatically provide positive feedback to the user.

Jenkins 801 provides a teaching where the user is given a positive feedback (col. 3:14-28). Therefore, it would have been obvious to include the feature of giving a positive

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feedback to the user of the system, as taught by Jenkins, into the system of **Parry** in order to indicate and award user for giving a correct response.

10. Claim 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Parry US 6,077,085, in view of Krebs US 7,029,280 and further in view of Strub et al 6,652,287

Claim 32: Parry and Krebs fails to provide a teaching of ensuring that the presentation performed as intended by the designer and that the result of the presentation is reliable.

Strub 287 provide a teaching where the system measures the presentation to ensure that it performed as intended and the result of the presentation is reliable (see Krebs '287 FIG. 12, 13 and col. 12:30-45). Therefore, it would have been obvious to include the feature of ensuring that the presentation performed as intended by the designer and that the result of the presentation is reliable, as taught by Strub 287, into the system of Parry '085 because it would ensure the instructor/designer to react to students' concern or difficulties (Strub col. 15:15-20).

11. Claims 35-36 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable Parry US 6,077,085, in view of Krebs US 7,029,280 and further in view of Siefert 5,810,605.

Claim 35-36 and 44-46: Parry '085 and Krebs fails to provide a teaching where the step of evaluating the educational content includes of automatically conducting0 experiment to identify instructional setting for the user [**Claim 35, 45 and 46**],

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information relating to one or more group to which the user belongs [**claim 44**] and automatically analyzes the data gathered from the experiment [**Claim 36**].

Siefert '605 provide a teaching where the system conducts experiment and automatically evaluating the data obtain from the experiment to ascertain which settings will be acceptable to the user [**claim 35,36 and 44-45**] and to determine information relating to one or more group to which the user belongs -left brain or right brain thinker- [**Claim 44**] (Siefert '605 col. 3:31-4:7). These setting are based upon the type of learner the student is classified as [**Claim 46**]. Therefore it would have been obvious to include the feature of automatically evaluating the data obtain from the experiment to ascertain which settings will be acceptable to the user, as taught by Siefert '605, to the system of Parry and Krebs because it would enhance the effectiveness and efficiency of the system with respect to a user (Siefert '605 col. 2:47-59).

Response to Arguments

12. The amendment with respect to claim 61-70 in order to eliminate the rejection under 35 U.S.C 101 is effective. The amended reflects the same idea that was discussed during the interview.

13. The amendment with respect to claim 7-8 in order to eliminate the rejection under 35 U.S.C 112, second paragraph is effective.

14. Applicant's arguments with respect to claim 1-70 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Utama whose telephone number is (571) 272-1676. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezutto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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PRIMARY EXAMINER